ASHINGTON SCIENTIST To Present THEORIES REGARDING TUBERCULOSIS

NEW TUBERCULOSIS DISCOVERIES BY DR. ERNEST C. SHROEDER.

TI BERULOSIS is never inherited; the children of parents who are dangerously tuberculous are not born with the disease. Prop-

The germs of consumption are always sown in the human system during the years of childhood.

"Original infection" of human beings with consumption always occurs at some time during the first sixteen or seventeen years of life.

Inherentosis is never planted, originally, in the lungs: it starts in

Tuberculosis is never caused by dust containing "dried human sputum." because dried human sputum never contains any living

Milk, butter, co., from tuberculosis dairy cows will cause human

The bovine and the human types of tubercle bacilli are not only closely related—they are interchangeable. Planted in the human system the bovine type of tubercle bacilli changes to the human type, and

and when they are grown they will never develop the disease.



is a development, not an "original infection."

ed its summer work November proofs secured in the course of years of 1, and the official report shows that the careful, exact experiment and research

interesting as these reports un- at every point, and in so doing they carry doubted y are, equal interest is certain a message of cheer to humanity, in that to be manifested in the discussion of re- they lift a burden of apprehension, of cent discoveries and new theories regard. fear, from thousands of human hearts, ing tuberculosis, the results of investigations and experiences that have for sev- of these old beliefs is fallacious. He eral years past been conducted by a says that rarely does tuberculosis

Dr. Ernest C. Schroeder is superintendthe direction of the bureau of animal to supercular infection, but they science - investigators whose names have become household words in

theories in regard to the manner of infection with tuberculosis are not correct. That only in extremely rare instances - ing seeds of latent tuberculosis, never so few in number as practically to be negligiole-does an adult human being be- disease. come infected with tuberculosis-that That such "original infection" prac-

tically invariably occurs during childhood, below the age of sixteen or sev-

planted in the system during infancy or childhood, lie latent, awaiting a weakened condition of the victim; such weakened condition, following illness, unusual strain and consequently lowered vitality, being a favorable time for the disease, hidden and unsuspected for years, to manifest itself. That "dried pulverized human sputum' ground into dust and borne in

the air, does not cannot and never did cause infection with tuberculosis. That infection does occur through the medium of fresh, most sputum from a tuberculous human being-this frequent cause-or through using milk, butter, etc., from That the human and the bovine types

of tubercle bacitius are not only closely akin, but that they are interchangeable and transformable from the one type to the other, according to their And, finally, that tuberculosis

never inherited—that is, that no child is born with the seeds of the disease n its system-and that, by the adoption of absolutely simple precautions, seriouly tuberculous mother need never pass the disease on to her off spring, but may rear sound, healthy,

these in brief, are the startling That the theories are not merely the vaporings of a sensation-seeking pseudo-scientist, but that they are Madam, you walk along the street with girls, with never the need even for pow-States government, and that they are across and picks up part of that which blush when addressed by their elders of based on experiments conducted by an a consumptive person has expelled upon either sex; wholesome, human-being the natural question, one not suggested important bureau of the great De- the pavement a moment before. Still girls. partment of Agriculture, aided by un- moist and hidden under the edge of your brand now nearly extinct in this neighmethod known to modern scientific in-vestigators, gives them weight far beat least to the lay mind, to be wholly beyond dispute.

Dr. Schroeder? In answer to this ques- house. The fingers carry the deadly of New York girls-most of them acion the words of a well known American bacilli into the baby's mouth. Perhaps tually school girls-between the ages I surgeon and tuberculosis investigator they pass with the saliva into the stom- have named. I want to be we'l within may be quoted. "Dr. Ernest Schroeder ach, or perhaps they find a lodgment on the mark, so I shall declare that every is probably the best informed man in some gland within the rosy mouth. In four out of five of them are grotesquely America today on subjects related to either case they sooner or later enter made up-enameled and rouge-bedaubed! the various forms of tuberculosis, both what is known as the lymph current, School girls, remember! Girls with the numan and bovine. He probably knows and are borne to some deep-seated lymph books under their arms! It may sound often, even when the mother is fooled, or more regarding the manner of infection, gland, where they lurk until illness, the age at which infection most frequent- lowered vitality or some such favorable truth!

During the greater part of that time he bacilli are filtered out, lodging in the flagrantly and depressingly! Imagine the ner and age of infection, medium of in- up what the doctors call "tubercular up in that way! fection, and how it may be eradicated, lesions," which are spots or centers of Do they wear girls clothes? They do countries that might be named-England, by members of the cast of performances tickets in the box office! been those of the careful and scrupulously spread until the entire lung is involved down to their lesser years. Women's this country, all the same, do keep sort consequence. exact Teuton, and he has enjoyed the -and consumption has developed. enthusiastic co-operation of trained scien. In the case of infection through using zarre kinks of women's clothes as they ensemble, so to speak, of their sisters; tended a first-night performance in which, amateur claque? tific associates and the almost unlimited milk, butter, etc., from tuberculous cows, are today; with all of the silly little the brothers also knowing what is what naturally enough, the central figure was

erly enred for, they need never contract it.

Persons past twenty to twenty-five years of age do not contract tuberculosis. If the disease becomes manifest at or beyond such age it

some other part of the body and reaches the lungs as a secondary

Inherculosis

keep the babies and the children from contracting tuberculosis,

ing of the Wash- great government department. So that revolutionary as they may seem, his ngton Auti-Tuber- theories may not lightly be passed over plosts Society, to and dismissed as those of an irresponsible

camp being situated in the systems; that, once "caught," consumption was practically incurable; that the tuberculosis of cattle and that which inagainst which Dr. Schroeder sets his face and the weight of attained results and

> The theories presented by Dr. Schroeder controvert these old accepted beliefs

He says-backing every statement with masses of proof-that every one originally enter the human system through the lungs-so rarely, in fact, as to make possible exceptions noteworthy. He says that infection is never caused by "dried, powdered huent of the government experiment station man sputum" breathed into the lungs. at Bethesda. Md., the station being under He says that in not more than one instance in a hundred thousand is the child of tuberculous parents born with The discoveries he has made during the that, except in cases far advanced, tuyears of observation, investiga- berculosis is comparatively easy to tion and experimentation, and the theories cure. He says that human beings can and do contract human tuberculosis through using dairy products-milk, cows affected with bovine tuberculosis. tively revolutionary. Not only do they He says that the human and the bohuman system, the bovine type readily under the feet of the investigators of an type. He says that infection occurs earlier day, and to leave world-renowned through the stomach, and not through the lungs; through the food, and not through the breath. He says that the a dozen languages-without a leg to stand seeds of tuberculosis are originally on. Here, in bare outline, are some of sown in the human system at some the things which Dr. Schroeder says are period below the age of sixteen to seventeen years. And he says that hu-That practically all of the old, accepted man beings who have attained the age of twenty to twenty-five years and whose systems are free from the lurk-

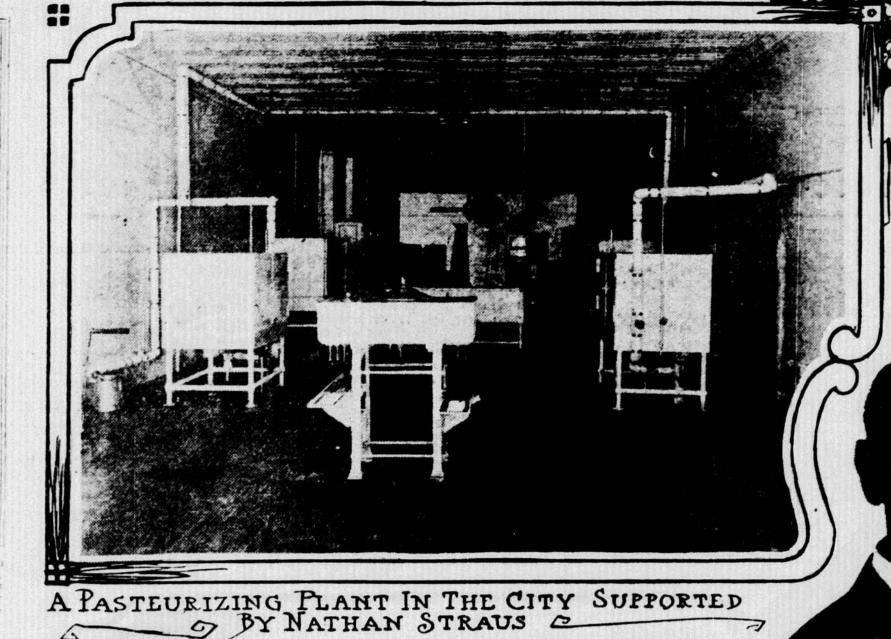
Cheering statements, these. Cheering even if startling. But with what proofs are the new theories backed. In as brief form as possible, and stripped That the germs of tuberculosis, as much as may be of scientific and physiological verbiage, the proofs are

need fear that they will "catch' the

As to pre-natal infection. The unborn child is nourished by its mother's arterial blood-stream. The bacilli of tuberculosis may be, and are, borne in the bloom streams of the veins-the venous circulation-but they are never carried in the arterial circulation. At least, tubercle bacilli have never yet been discovered in the arterial circulation of a human being.

Infection by inhaling "dried human point where it may be reduced to dust by tions, require several hours. Such drying, in an oven heated 150 degrees F. can only be accomplished in three or four company hours; on a pavement the time required exposed to sunlight for thirty minutes are killed; of a colony containing teeming millions of the bacilli, not a single one will remain alive after half an hour's exposure to the sun's rays. Subjected for half an hour to a temperature of where on the streets, hither and you, 150 degrees F., every bacillus is killed; coming and going. not one retains the slightest trace of life after exposure to such a temperature girls looking out upon the world with sever did and never can cause infection, cation; the young girls with their fine berculosis enter the system by way of their backs; young girls in healthful, would be better to say by way of the of shoes for comfort and growing, natumouth. But how?

backed by the authority of the United trailing skirts. Your gown's hem sweeps der, that least of cosmetics; girls that limited funds and every appliance and garment from the light, this matter borhood. yond that which might attach to the You trail your skirts over the rug upon places of the disappeared sort of girls statements of private investigators, which your baby plays. The baby creeps teen And the proofs with which Dr. Schroe- about over the rug's resilient surface, der accompanies his statements seem, often putting his little fingers into his little skimpy marionettes! mouth. The moist fingers take up the The reader will probably ask "Who is bacilli which you have borne into the y occurs, and the various media of in- condition-favorable to them-arises. Then the bacilli enter the lymph current again; enamel and an equally deadly red rouge!





TUBERCULOUS CHILDREN WITH NURSE AT DAY CAMP OF TUBERCULOSIS HOSPITAL

bacilli enter the stomach, pass thence culation, on into the lungs, and the great end of five months. Unpasteurized milk possibility of doubt that the bovine and the lymph current, find lodgment white plague claims another victim. within a lymph gland, lie latent for a As to the vitality of tubercle bacilli deadly because slow. Such milk contains longer or shorter time-most frequently in milk, butter, etc., Dr. Schroeder has tubercle bacilli in numbers greater or terchangeable. In these experiments col- per cent, observed by von Pirquet in in- tality and abounding health, because the never becoming manifest—but under conspression beyond doubt that the bacilli in smaller according to the stage the dis-ditions favorable to the development of butter made from the milk of tubercu- ease has reached in the cow. The cream planted in the serum of human blood. In dren from fifteen to seventeen years old,

bacilli the milk may contain.

SCHROEDER

with Dr. Schroeder, recently completed a long continued experiments and observa- may be kept from developing fatal cor human types of tubercle bacilli are in- dren in Europe runs all the way from 7 by maintaining a high

to child should be fed on milk that has made; various animals besides cows and berculous persons must not be permitted reau of animal industry, co-operating the facts that have been observed in the even if infected the babies and children

not been pasteurized-which simply means men were called on for serum. The orig- to work in creameries, dairies, bakeries the milk to a temperature of Inal bacilli at times were from human or in places where they will about 150 degrees Fahrenheit and keeping sources. But in every case the transfor- dispense ready-to-eat foods. That "No it there for thirty minutes not even if mation came. In human serum the bacilli spitting" signs must be multiplied ten the source of the milk is positively known became of the human type, while in bo- thousandfold if the babies of to be safe and disease free. Pasteuriza- vine serum the bacilli, even if originally are to be protected from infection of the tion unfailingly kills all the tubercle human in type, became bovine. Not sort that is spread by the careless of once did failure occur-not once in hun- ignorant consumptive. It is during childhood that milk forms

a large part of the diet. Dr. Schroeder has prepared tables in which are set forth. The discoveries mean, further, that tions of half a score of the greatest in- sumption by keeping them out of doors vestigators of Europe. These figures show that the percentage of infection in chil- by proper feeding and judicious exercise observed by Dr. Hugo Northmann. This never develop their dread malignancy in does not mean that all of these children had a child or an adult whose health is good enter, the lymph stream, pass into the upon the roofs of school buildings; that is lungs, there to be filtered out as the blood is aerated, and to set up the tuber-

HERD REARED BY DR. SCHROEDER, FROM

TUBERCULOUS PARENT STOCK. NO TRACE OF THE

DISEASE IN ANY OF THE ANIMALS.

TUBERCULOUS CATTLE USED AS BREEDING STOCK AT U.S. EXPERIMENT FARM AT BETHESDA MD.

echoed answer from the cave of the show, the star had a lot of what actors Schroeder's theories are supported by mouth nor talk haby talk in its tace. And women's hats. Hats that fall so Pied Piper of Manhattan in which, one call "fat," and at the climaxes the au-Germany, has no peer as an investigator tracts the disease it will be from the

by Dr. William H. Park, director of the

Dr. Smith has followed Dr. Schroeder's experiments in regard to the possibility or impossibility of infection with tuberhuman sputum and has stated that Dr schroeder is correct in his contention that

of the singers were not only willing, but who was making her first appearance in tem they are transformed into the human has progressed as far as the third generathe cities of the United States where been an amateur actress), she did it most ported by Dr. Park of children over sixteen years of age not a single case showwith a hard precision; nothing sponta- of the services of the claque. She added ments of acting. She was a figure of ed the presence of the bovine form or neous, flowing, rippling from the center a rather curious kink to her statement, awkwardness; she couldn't walk across type of bacilli. In fifty-three cases reof unbruised, happy natures; just grown- That is, she said that the claque is highly the stage with even a symptom of grace; ported by him of children from five to test up talk, proceeding not alone patly but useful, if for no other purpose than to and the few lines she had to read were fifteen years of age he found nine cases dogmatically from the lips of young girls let the audience know the proper places read with an almost ridiculous clinging of infection with the bovine bacilli, while in eighty-four cases which he reports of children under five years of age the bo-Now, these children must depart from performances where indiscriminate and Whee' the wild, stormy, tumultuous, vine type of bacilli were present in twen. American fathers and mothers it means noisy applause damages the production, hoarse, deafening, ear-splitting, tympa- ty-two cases; twenty-two out of the that their babies need not be tuberculous How often, she asked, do operatic sing- num-tweaking noise of applause that was eighty-four had bovine tuberculosis. Dr. even if the parents are, because what is ers, in the midst of arias in which there made in her honor by two rows of her Park further reports that in nine cases possible with animals such as cows and is only a slight pause, become highly mateys, men and women, sitting in the of tuberculosis in children under six flustered and nervous when they hear orchestra, not to mention several boxes years of age treated in the New York

tract it. That in feeding infants and in every imaginable way, and they have children raw milk must not be used, nor stood every test.

that rises on such milk fairly swarms a few months these bovine bacilli had the dairy products made from raw milk with the murderous bacilli. Ripened for changed into the human type. Put back That tuberculous persons must no longer churning, the bacilli increase, are taken again into the serum of cow's blood they be permitted to handle, in the markets up in the butter, and live in the butter changed back into their original type, or manufactories, foods that are to be for as long as five months. That is why Hundreds of these experiments were used as they come to the consumer. To

lung consumption; it means that in all whose vitality is strong and whose vein these cases tuberculosis existed in some and arteries flow with rich, red, highly part of the child's body. The tuberculosis oxygenated blood. That is the reason which infects a remote gland, say, in a for out-of door camps for tuberculous opportunity to break down that gland, children; that is the reason for schools vein blood, travel in that current to the the reason for sleeping in the open air it must have the open air. It must have pasteurized milk, and it must have rich blood-making foods-nitrogenous foods

mother herself, most likely. To show the

For more than five years past D

learn if it is possible to rear perfectly sound, healthy offspring from tuberculous parent stock Cows that were proven to be badly fected with tuberculosis were mated with males in which the disease was far admothers at birth. These calves were fed on their own mother's milk, the milk first

This experiment means a great deal. To bulls is possible with human beings in

under quarantine conditions and used as breeding stock if the calves are taken It means that even the milk from these cows need not be wasted; it may be used

When it is known that Dr. A. D. Meldiscovered, are killed without recompense, berculous dairy stock may safely be used for breeding purposes by following certain

men and women need no longer fear that maintains there can be no doubt. They

CLARENCE CULLENS GOTHAM GOSSIP. touches of what is called the ultra styles. Where, then, are the brothers of all these, the star of the production. He gained the

NEW YORK, November 11, 1911. DISAPPEARED Nine tenths of the young girls

this town. Nor will there ever grown, but on young girls are merely

being ground beneath the feet of pedes- downtown streets at all. Once in a great rians would, in very favorable condi- while, far up in the Bronx, you catch

would be far longer. Tubercle bacilli laughing, chattering, happy hearted, happy-eyed troops of them? What Pied Piper of Manhattan has beguiled them forever away? I mean the kind of young girls that used to be such agreeable pictures every-

Manner of infection-the germs of tu- young hair hanging in thick co.ls down maids neither children nor yet women; tops! with the flowery, simple and yet becom-

> between the ages of fourteen and seven-Why, made-up, and hideously made-up, Browsing pedestrian-wise through this Manhattan jungle for air and exercise, every day I come upon some thousands

glass point; caught in, straight-fronted, as to conceal every vestige or wisp of gulfed hair; or else towering crazy hats, feathabove has yet been printed in er-peaked, that are bad enough on women

What bills the fathers of young girls in New York, fathers snagging out merely fourteen and seventeen are average incomes, as most of them must be, must have to pay for slik stockings! nearly emaciate; showing that the madness of the elders of their sex to keep the natural flesh within absurd limitations has also trapped the girls. Hardly ever a hearty, buxom, liberally fleshed girl in sight! Their hair tucked up under their lud'crous headgear, a braid, rarely. Their eves calm, keen, searching, sophisticate with an inquiring wisdom that would learn more and more always; little no laughter, but confidences whispered between them, and no girlish chatter; that would be in no conformity with their imitation of the grown women!

ral and pleasing clothing devised for with their dresses at or above their shoe for the applause, and to suppress foolish to the manner of the "elocutionist." and return to their homes looking that way They can't fix themselves so horribly on the street. by the plainest sense of near-wholesomeness. Where, for example, are their mothers? Even if the mothers them selves as so without a server of the country the selves as so without a server of the ser selves, as so pitifully often is the case, are bedaubers and smearers of their countenances, indulgers in veritable aberrations of phantasmic and general investiture, can it be reasonably supposed that they are for that reason alone willing that their young daughters shall

front the world so dismally off the pattern from every human, natural conception of what young girls, as to their exteriors, should be? There is nothing else for it: it simply must be so supposed! The girls couldn't so bedight themselves without the permission of the mothers. P. S.-Where are the fathers? Very Four out of five of them all plastered knows what's what as to the way the dered.

in women's clothes; corseted to the hour sadly smeared young girls of New York? applause that was coming to him from To that question there is not even an the audience in general. It was a good far over their faces-a charity, come to must suppose, most of the old-fashioned dience "came over" liberally and unmisthink of it, considering their make-up- young girls of New York have been in- takably with all of the applause that the

Silk-stockinged, nearly all of them, in the toils the other day. He is a Ger- young woman, said press-agently to be a proached" a number of the members of is, in the distant community from which the Metropolitan Opera Company, with she hails (hails? what is hails?)-there whom he had had no previous dealings, was a young woman who had a most And, almost to a girl, high heels, upon and suggested that they "come across" which they walk and wabble precarious- for applause, on peril of being hissed. He working of the story. She wasn't exactly ly. Figures, as I have writ, skimpy, couldn't be handled for asking them to a wielder of a feather duster the girl give him money for the applause, but he who is seen when the curtain goes up and put his foot into it when he virtually threatened to arrange for the hissing business if they didn't "produce." Hence he vanished

> business, and strongly intimated that all Little as this "reigning social favorite" useful institution.

I shall call the amateur claque.

star could possibly have asked for. As a matter of fact, he didn't ask for

keeps mistress so late from the ball? But she was just one of the little chunks of excess baggage in the scene, so to speak, and her part could quite easily have been omitted altogether without in ctaque in general. She pooh-poohed the the least detracting or even subtracting idea that her colleagues in the operatic from the general interest of the perform-

Addressed by their elders, they speak big opera is produced to avail themselves wretchedly. She didn't know the ele-

plause belongs; and, therefore, the most looked as if the friends of the young claque, to this extent at any rate, is a woman were deliberately guying her, but they weren't: they really meant to ap- These new discoveries by Dr. Schroeder from their mothers at birth. In all of the divigations upon this sub- plaud her, and they did applaud her unincredible; it is the simple, provable wheedled, or merely careless, 'tis no tures of the performances when peace for no demonstration whatever, and when selves, truth! in the show were engaged in saying and The new discoveries mean that the hu- simple rules is of an importance to dairy-

their sisters, as they are in some other ties by stars, but very often (too often) of the piece than the surly brute selling. The new discoveries mean that grown new theories are correct Dr. Schroeder Of German extraction, his methods have infection; these spots, if not eradicated, not! They wear women's clothes, cut for example. But the elder brothers in who are not in the least of the remotest. As long as they are leaning hard with they may "catch" consumption. They have been approved by the highest author clothes, with all of the foolish and bi- of a wise and wary eye on the general A few nights ago, par example, I at- claque, why not tell the truth about the have reached maturity they will not con- they have been tried, tested and proved

CLARENCE L. CULLEN.

culous ulcers that in time, if not check, of incipient tuberculosis must be kept This, in as brief and untechnical form as the doctors say. If the child has these as possible, is an outline of Dr. Schroe- things the tubercle bacilli in its system

ject which have been elicited by the til, when you stood outside the theater mean simply that the old accepted becatching up with of the professional after the show, you felt as if you'd just liefs in regard to the great white plague in feeding the calves if it is first pasteur claquer, nothing, so far as I have been been having a surf bath and had must be abandoned. We do not contract ized at 150 deegrees Fahrenheit for thirty able to see, has been printed about what your ears filled with the roar of the consumption by breathing germ-laden when it is known that Dr. A. D. M. By the amateur claque I mean the Every time she appeared on the stage dust into our lungs. We do not because vin chief of the bureau of animal indusriotous bunches of the friends of the- at all a roar, a tremendous, terrifying we cannot. The wind-blown dust of the try, says that at least 10 per cent of the by bolsterously and imbecilely applaud- on a tin roof. And very often such out- not breathe it into our lungs, because of ing their pets (to whom they are, of bursts actually smashed the action of the physical and mechanical safeguards or with only a small payment, to the course, indebted for their tickets) at junc- piece. The young woman's part called within the structure of the lungs them- owner, a discovery that shows that tu-

fection than any living American in- the disease-weakened giand breaks down; and smeared up with a deadly white young daughter should look; he does not I don't, understand, refer to that ushers' doing things that were vital to the action. man individual contracts tuberculosis albrush elbows with the world up to the applause; the ushers' app'ause is too bo- But did that make any difference to the most before that individual is out of lars. For the past ten years Dr. Schroeder they pass into the vein blood that is re- I do not say that so many grotesquely marrying point without having picked up vinely stupid and too infallibly wrong and young woman's boosters? Not the least! swaddling clothes, or at least during the But to the people of the country—the has been superintendent of the govern- turning to the lungs to be revivified and pencil their eyebrows and lashes, but that elemental knowledge. Where is the out of place even to be commented upon. They were there to roar and howl, and knickerbocker or short skirt period of fathers and mothers of American boys ment experiment farm at Bethesda, Md. recharged with oxygen. In the lungs the many, many of them do, patently and New York father of young daughters? What I mean is the wild and screechful howl and roar they did, till they came life. Therefore, the babies and children and girls, and the unnumbered thousands the standard of consumption. P. P. S.-And, when it come to that, and hand-whackful outbursting of the near splitting themselves. And they made must be safeguarded against infection, who live in daily dread of consumptionhas been investigating the many-sided microsopically minute blood capillaries effect-whole rafts of girls, to and from where are the brothers? Brothers, in this gangs, always sitting far down in front, her make a speech! A young woman which, if properly seen to, means that the discoveries of Dr. Schroeder come as problem of tuberculosis—its cause, man- within the lung structure. There they set school, with their countenances messed country, are not of the bullying sort over who had no more to do with the success there will be no more adult consumptives. an unbelievably welcome hope. their mallets upon the professional may develop the disease; but after they ities at home and abroad; but better still,